

LOW -COST TWO-STAGE RECEIVER SYSTEM FOR DS-CDMAABSTRACT

5 A method and apparatus for receiving and processing a DS-CDMA signal
in accordance with a two-stage process. The first stage comprises signal
detection and employs a correlation between the sampled incoming waveform
and a pseudo-noise code sequence. This stage is performed in real-time. Once
a signal has been detected, a burst of the sampled incoming waveform is
10 collected and then post-processed to recover the incoming information. The
method may be implemented at low-cost on a general-purpose digital signal
processor. The invention is especially suitable for DS CDMA location systems,
where low-cost and low power consumption are desirable.

15

Patented by the U.S. Patent and Trademark Office